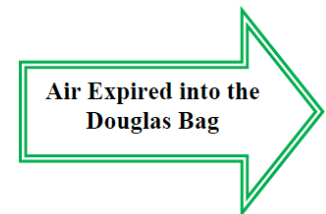
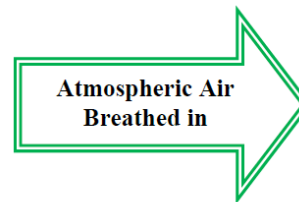


Douglas Bags User Guide



Assembling the mouthpiece

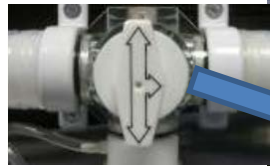
- Insert the white valves as shown in the image to ensure that the air flow is correct
- Then screw together the mouthpiece and end pieces



Vacuuming the bags

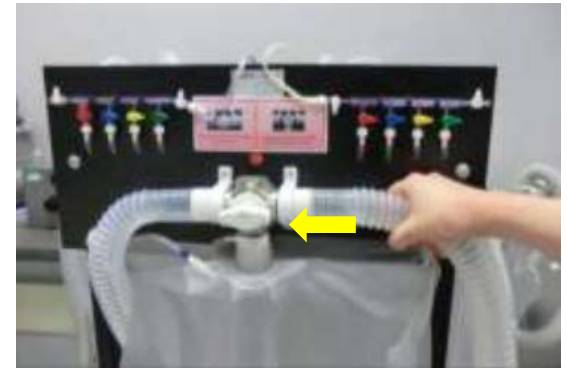
- Connect the tube to the Douglas bag
- Turn the valve 90° clockwise to open the valve to the Douglas bag
- Flick the switch to the 'on' position on the Harvard dry gas meter
- Turn on the vacuum pump until the counter on the Harvard dry gas meter stops increasing
- You may need to squeeze the bags to ensure all the air is out of them for the best results

Open Valve



Connecting breathing tube to Douglas bag

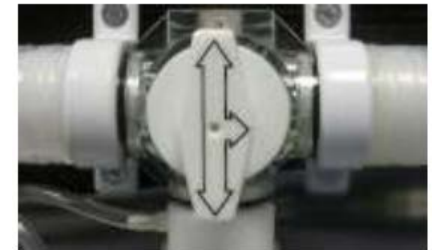
- Connect breathing tube to the Douglas bag as shown in the image
- Get the subject to put the mouthpiece in and wear a nose clip
- To collect air turn the valve 90o and the bag should begin to inflate
- Once complete close the valve again and if necessary open the valve to the next Douglas bag on the trolley to collect more air



Closed valve

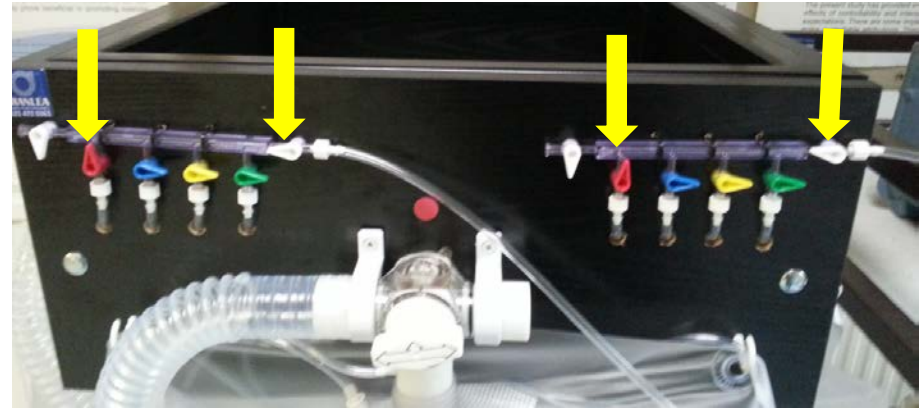


Open valve



Using the Servomex to sample expired air

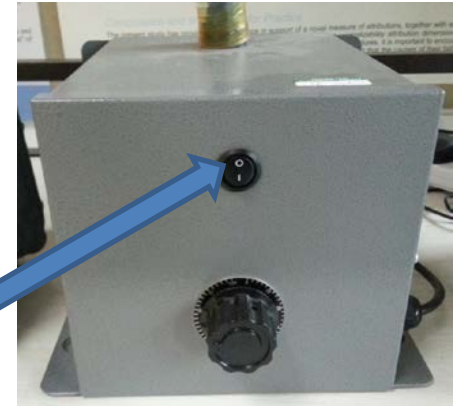
- After completion of the test using the Douglas bags, gas collected needs to be analysed for volume and composition. The servomex will give you a % expired O_2 and CO_2
- Connect the sample line from the Servomex to the Douglas bag
- Turn the red and white valves to the position shown to allow air circulation. Start the pump on the Servomex and wait for the O_2 and CO_2 figures to settle. Then turn the valves back to their original position
- Note: The colours of the valves correspond to the dot stickers on each side of the trolley



Pump
switch

Volume analysis

- Connect the tube from the Harvard dry gas meter to the Douglas bag as shown
- Turn on the Harvard dry gas meter by flicking the switch and press reset to zero the litres screen if not on zero already
- Switch on the vacuum pump and run until the litres reading no longer continues to rise
- The reading you get is the number of litres of gas used during the test



Cleaning

- All tubes, mouthpieces and nose clips need to be sterilised once testing has finished.
- Fill a bowl with warm water and add 2 virkon tablets
- Soak for 10 minutes and get as much water out of the tube as possible and hang on the rack to dry
- Put the mouth pieces and nose clips in the drying cabinet